



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,373	07/29/2003	Sridevi Narayan-Sarathy	20435-00141-US	4318

30678 7590 05/25/2006

CONNOLLY BOVE LODGE & HUTZ LLP
SUITE 800
1990 M STREET NW
WASHINGTON, DC 20036-3425

EXAMINER

BERMAN, SUSAN W

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 05/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary	Application No. 10/628,373	Applicant(s) NARAYAN-SARATHY ET AL.	
	Examiner Susan W. Berman	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9, 11-48 and 50-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-9, 11-48 and 50-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

The objection to claim 1 is withdrawn.

The rejection of claims 24-26 under 35 U.S.C. 112, second paragraph, is withdrawn.

Response to Arguments

Applicant's arguments filed 03/15/2006 have been fully considered but they are not persuasive.

It is agreed, as argued by applicant, that Ostlie et al do not disclose reaction of a thiol with an acrylate group of a molecule comprising a photolabile ketone chromophore. However, this argument is unpersuasive because the rejection of record is based on motivation to substitute the photolabile ketone chromophore-containing Michael reaction product disclosed by Moy et al for the polyacrylate-functional compound in the thiol-ene composition disclosed by Ostlie et al. "One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of providing a light curable thiol-ene composition because the polyacrylates disclosed by Moy et al having the same (meth)acrylate polymerizable functionality as the polyacrylates taught by Ostlie et al would be expected to polymerize with the thiol compounds in the compositions disclosed by Ostlie et al." It is the examiner's position that one of ordinary skill in the art at the time of the invention would have been motivated to employ the acetoacetate-containing polyacrylate oligomers disclosed by Moy et al in the compositions taught by Ostlie et al in order to take advantage of the self-photoinitiating property of the acetoacetate-containing polyacrylate oligomers disclosed by Moy et al in the thiol-ene compositions disclosed by Ostlie et al. Ostlie et al provide motivation by teaching light curing of the disclosed compositions using a photoinitiator. Moy et al teach that disclosed Michael Addition polyacrylate compounds are self-photoinitiating.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-9, 11-48 and 50-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostlie et al (5,876,805) in view of Moy et al (5,945,489). Ostlie et al disclose light polymerizable thiol-ene compositions comprising an acylphosphine oxide photoinitiator. The “ene” component is a monomer or oligomer having a plurality of free radically polymerizable ethylenically unsaturated groups, such as (meth)acrylate groups. See the Abstract and Examples. Moy et al disclose polyacrylate oligomers obtained by Michael Addition which can be crosslinked using ultraviolet light without adding costly photoinitiators. See Table 5 and column 5, lines 20-63. Moy et al do not mention reaction with mercaptans.

It would have been obvious to one skilled in the art at the time of the invention to employ the polyacrylate oligomers taught by Moy et al as the polyacrylates in the thiol-ene compositions taught by Ostlie et al. One of ordinary skill in the art at the time of the invention would have been motivated by a reasonable expectation of providing a light curable thiol-ene composition because the polyacrylates disclosed by Moy et al having the same (meth)acrylate polymerizable functionality as the polyacrylates taught by Ostlie et al would be expected to polymerize with the thiol compounds in the compositions disclosed by Ostlie et al. It would have been obvious to one skilled in the art at the time of the invention to employ acetoacetate-containing polyacrylate oligomers disclosed by Moy et al in the compositions taught by Ostlie et al and to omit the acylphosphine oxide photoinitiator taught by Ostlie et al. One of ordinary skill in the art at the time of the invention would have been motivated to omit the photoinitiator disclosed by Ostlie et al in order to take advantage of the self-photoinitiating property of the acetoacetate-

Art Unit: 1711

containing polyacrylate oligomers disclosed by Moy et al in the thiol-ene compositions disclosed by Ostlie et al. Ostlie et al provide motivation by teaching light curing of the disclosed compositions. Moy et al teach that disclosed Michael Addition polyacrylate compounds are self-photoinitiating.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W. Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
5/22/06



Susan W Berman
Primary Examiner
Art Unit 1711